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# NASA TECH BRIEF



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## Heat-Shrinkable Jacket Holds Fluid in Contact with Tensile Test Specimen

### The problem:

To devise a simple, effective means of surrounding a metal tensile test specimen with a specified liquid. The method of attaching the jacket for containing the liquid must not introduce any contaminants into this liquid. The jacket itself, as well as any adhesive used to bond and seal the jacket to the test specimen, must be resistant to chemical attack by the liquid.

### The solution:

A piece of heat-shrinkable plastic tubing can be quickly sealed around the metal test specimen and used as a jacket for any compatible liquid.

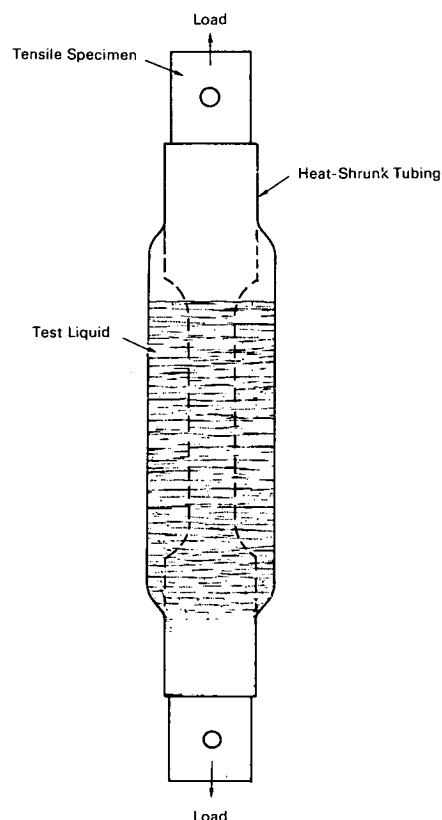
### How it's done:

The tubing material is selected to be compatible with the liquid to be contained in the tubing. One end or both ends of the tubing, of a diameter to fit the tensile specimen, are sealed around the metal with a hand-held heat gun. If only one end of the tubing is heat-sealed, liquids can be poured directly into the open end, which is then heat-sealed around the metal. If both ends of the tubing are sealed around the metal, liquids (or gases) may be introduced through the wall of the tubing by means of a hypodermic syringe. The latter is particularly useful when toxic or flammable fluids must be enclosed around the test specimen.

### Note:

No further documentation is available. Inquiries may be directed to:

Technology Utilization Officer  
Manned Spacecraft Center  
Houston, Texas 77058  
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### Patent status:

No patent action is contemplated by NASA.

Source: L. J. Leger and I. K. Spiker  
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